

Management in Implementation of Government Sponsored Projects in Kenya: A Survey OF Fish Ponds Projects in Gatundu South District- Kenya

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Abstract

The principal aim of the study was to assess the influence of scope management as a tool in project management in implementation of government funded projects to establish if such projects apply the PMBOK® (2000) recommended techniques of defining scope, planning for the scope and change control mechanisms in place as such projects progress. The study focused on fish ponds projects in Gatundu south District in Kenya which were under Economic Stimulus Program, a government initiative to address issues of food sustainability, unemployment and overall economic growth of the economy. The study was motivated by the observation that the projects were initiated as pilot projects in 140 constituencies which were later to be rolled out in other constituencies in the country. However some of the projects didn't achieve their intended objectives. The study targeted the 200 fish pond projects Gatundu south District where a sample of 20 fish pond projects were identified and formed the sample. The respondents for the study were the fish pond owners. Questionnaires were prepared and hand delivered to the respondents to assist in data collection which was later analyzed through descriptive statistics and presented with frequency tables.

Among the parameters probed were projects scope definition which included stakeholder's involvement in projects designing, quality and sources of water for the ponds, source of feeds, and training of the farmers before initiation of the projects. The nature of planning for the projects studied included the sustainability of the projects in terms of continues supply of water and feeds, marketing structures in place for the produce and public sensitization as the projects progressed. Change control mechanisms considered included flood and drought mitigation structures, change in pond specifications and variations in feed. From the study what emerged

is that projects scope was not adequately defined before the initiation of the projects and these led to subsequent insufficient planning for the projects. This was found to have highly contributed to projects failure. It would be recommendable that before the projects are rolled out, there should be clear scope definition by all stakeholders to include all the project requirements and this would give way to adequate planning for successful completion of the projects.

1.1 Background information

Projects are temporary endeavors undertaken to produce specific objectives within a given time and at a specified costs. This means that a project must have a clearly defined scope [work to be done and specific performance requirements that must be meet], have a definite starting and ending points and a budget for successful completion. In project management, four key constraints i.e. Scope, Time, Quality and Budget relates to each other in successful completion of the projects [PMBOK 2004].

Projects worldwide are initiated with aims of solving a particular problem, satisfaction of need for the community or to take advantage of an existing opportunity in the business world. In developed countries, projects sponsored by the respective governments have played a great role in job creation, food sustainability, provision of health services as well as education with an aim of poverty eradication and development in the countries. To speed up their economic development with the implementation of significant number of infrastructure projects, developing countries are depending on different type of funding from Official Development Aids (ODA) donors, e.g., Japan's Overseas Economic Cooperation Fund (OECF), the World Bank (WB), Asia Development Bank (ADB), African Development Bank (ADB), etc, in which financial sources are attached to effective management of funded projects. In China, Stimulus package was announced by the Central People's Republic of China on 9 November 2008 as an attempt to minimize the impact of global financial crises on the world second largest economy. The government allocated resources toward different projects among them rural development and technological advancements programs worth 370 billion Yuan. The projects sponsored by the government included building public amenities, resettling nomads, supporting agriculture and provision of clean safe drinking water. [2008-2009 Chinese economic stimulus plan]

The 2007/2008 post election violence that affected the Kenyan economy coupled with prolonged drought, oil and food crises and the effects of the 2008/2009 global economic crisis called for quick measures to jumpstart the Kenyan economy toward long term growth and development. Ministry finance came up with Economic stimulus program with a total allocation of 22 Billion Kenya Shillings [260 million US\$], with the money going towards the construction of schools, horticultural markets, jua-kali sheds, food production, fisheries and local government projects. The projects were aimed at boosting the country economic recovery, invest in long term solutions to the challenges of food security and expand economic opportunities in rural areas for employment creation as well as improving infrastructure and the quality of education and healthcare among others. [2009/2010 Kenya Economic Stimulus Program] The projects were funded by the Kenya government in collaboration with the ODA donors.

The international aid program for the developing countries is major undertaking on a global scale. However, the slow pace of ODA disbursements reflects a lack of confidence from donors caused by the poor quality of implementation of development projects which often face delays, cost overruns, poor performance and many require major costly project changes [2007 PMI Global Congress-Hong Kong]. Projects worldwide are sure to fail if effective project management principles and methodologies are not provided for their execution. Ample evidence of these failures exists throughout the world and is particularly severe in developing countries where necessary skills have not been successfully developed in its project management related work force. The success of these projects is highly dependent on several variables which when identified and managed during planning and implementation phases of the project, contribute to successful completion of the projects. Many projects have failed resulting to white elephant projects or have been unsuccessfully completed due lack of identification and management of this variables. A study conducted by the Standish group in 2001 has revealed that only about 17% of all software projects undertaken in the United State met the original project time, costs and scope targets while 50% had their targets changed, meaning that they were late in delivering the set goals, they were overspent and had their performance requirement reduced. The remaining 33% of the projects did fail or they were cancelled before project closure. In product development projects, similar dismal rates of failure, waste and cancellation are experienced. Experts in products developments estimates that about 30% of the cost to develop a new product is re-work. This means that one of the three engineers assigned to a project spends full time just redoing what the other two engineers did wrong in the first place.

According to PMBOK 2006, 50% of unsuccessful projects fail during the initiation phase of the projects, 30% fails during the planning phase and 20% do fail as a result of poor implementation of the projects. During the initiation phase, the key requirement to all projects is the identification of the magnitude of the work to be done and the deliverables of the projects. This is the scope of the project and the specifications of what is expected once the projects are successfully completed. Poor scope definition has been recognized by the industry practitioners as one of the leading causes of projects failure, adversely affecting projects in the area of costs, schedule, and operational characteristic. Unfortunately, many project managers and the contractor organization do a poor job of not adequately defining the project scope leading to a poor design basis according to PDRI. [Project Definition Rating Index] The scope of the projects acts as the cornerstone of all projects requirements in successful completion i.e. the budget, resources and time can only be allocated once the scope of the project is identified. Once the scope is wrongly perceived, poor budget allocation is done, resources are wrongly allocated and the time for project completion is poorly planned. This has resulted to failure of many projects. Project scope also outlines the deliverables of the projects and the acceptance criteria of the project to the clients and the beneficiaries and this should be well identified and planned for during project identification.

In developing countries, 80% of the unsuccessful projects fail as a result of poor scope management [World Bank and Africa Development Bank, 2003]. Project scope identification especially for projects with many beneficiaries is a key factor in the success of projects. Projects where the stakeholders and the beneficiaries are not involved in scope identification face a lot of rebellion during the implementation phase as they do not own it. Once the project scope is

identified, planning of the activities to be undertaken in a project aids in estimation of the resources, costs and the time to undertake the project. Research has shown the importance of project planning on capital projects and its influence on project success. According to Construction Industry Institute (CII), recent studies have proven that higher levels of pre-project planning effort can result in significant cost and schedule savings which is associated with improved project predictability, and has concluded that a complete scope definition prior to project execution is imperative to project success.

Changes in projects scope are inevitable as many parameters' come in to play during project implementation. Budget constraints and the time frame to complete the project do affect the magnitude of the work to be undertaken in projects. As described by the PMBOK, the main objectives of the projects that includes the scope, time, costs and performance of the project [quality], are interrelated. Changes in one objective either have a positive or negative impact on other objectives in projects deliverables. Proper planning and management of costs, time and quality ensures that when changes occurs in the project scope, it is to the interest of successful completion of the projects and satisfaction of the beneficiaries.

The Kenya government has invested a lot on projects all over the country targeting the youth and women in achieving its vision 2030 goals. Education projects to empower the country human resource has taken the lead with the provision of free primary and compulsory education. Projects to construct school infrastructure have been funded through Constituency Development Fund [CDF] and Economic Stimulus Program [ESP]. Women groups have benefited a lot in different projects aimed to support them and their families across the country. However, many projects have been unsuccessful resulting to losses to the government and the beneficiaries of those projects.

1.2 Statement of the problem

The Kenya government in its effort to provide citizens with food, education, health services, employment, poverty eradication and overall economic stability, come up with programs to support different projects among them being the Economic Stimulus Program (ESP) all over the country through the line ministries and other relevant institution. The programs are aimed to boost economic growth and lead the country out of recession situation brought about by economic slowdown in the late nineties. Agricultural projects aimed to provide food and employments to the youths were initiated in a number of constituencies all over the country under the program. The projects included among others irrigation projects, green house farming projects, and fish pond farming projects. Fish pond projects got a bigger share of the funding due to the fact that, not only by providing food and employment, it provides white meat which is increasingly being advocated for especially to the growing children. A lot of money has been set aside for these projects as evidenced by 2012/2013 budgetary allocations in our National budget (<http://www.nation.co.ke/News/-1056/855368/-/vpyoe/-/index.html>). However, according to (KNBS, 2012), the much anticipated returns from these projects is not evident but on the contrary farmers are increasingly incurring losses as a result of unsuccessful fish ponds projects in terms of money used in the projects, time spent in the projects implementation and land that could have been otherwise utilized for food production. Given the great concerns raised by various farmers about the failure of the projects where

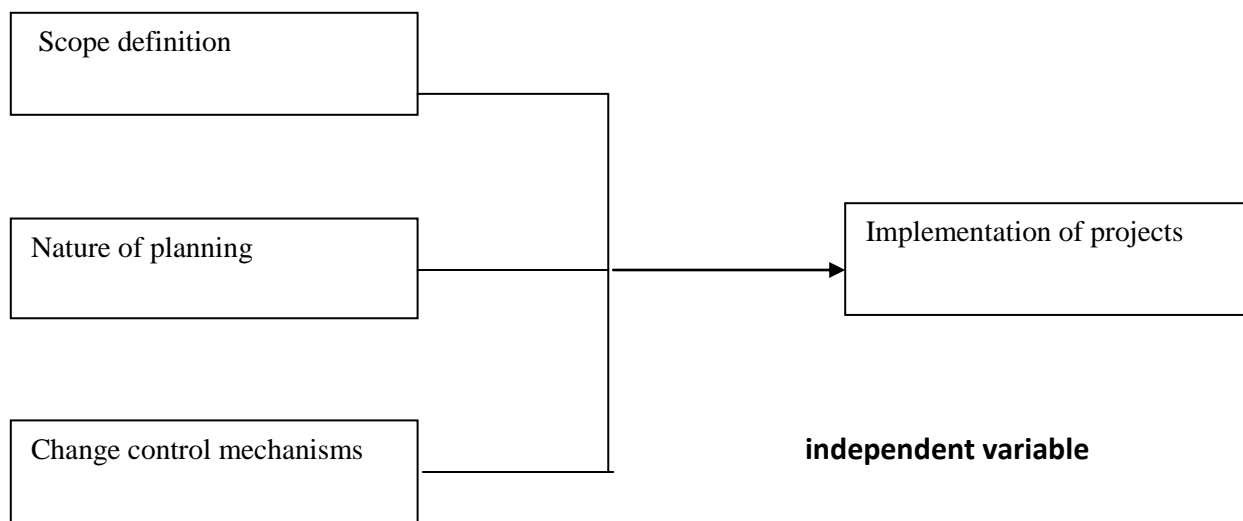
farmers have incurred a lot of losses, one wonders whether the projects scope was adequately defined, planned and managed during project implementation to include among others training of the farmers, public sensitization, monitoring and evaluation and marketing of the produce

2.0 Literature review

2.1 Theoretical framework

Effective scope management is one of the key factors determining project success. Failure to accurately interpret the client’s needs or problem will produce misleading definition (scope of work). If this causes rework and additional effort, there may be project cost and time implications. Therefore project success will be self-limiting if the scope of work is not adequately defined (Rory, 2008). The key primary pillars in scope management for successful completion of projects according to (Heldman, 2004) are scope definition, scope planning and scope change management. He further states that, one can have a clear definition of what is to be done in a project but poor planning for the same would result to poor implementation and the consequences would be project failure. (Hinge, 2003) believes that 75% of the projects fail as result of poor scope management where functional budget is exceeded, project is not delivered on time, the end result does not meet the expectations and commitment to implement results is not ensured.

2.2 Conceptual frame work



2.3 Scope definition

The scope sets out what is and what is not within a project’s brief, which must surely be known beforehand as this permits formulation of “a clear boundary statement” (McConnell, 2010,). For the scope, if accurately delineated, also aids in calculating cost and time. (Gibson Jr. et al. 1995) maintain that a thoroughly worked scope definition (SD) “can significantly enhance the predictability of project outcomes, improve user satisfaction, and provide cost and schedule savings”. It behooves a prudent project manager or project management team to

“communicate a scope well before the project gets underway due to finite resources and the generally limited timeframe” (Waddell, 2005). Whilst this sounds like a common sense method to proceed with a project, it is not always the case because defining scope is a very challenging task.

The (PMBOK, 2000; Kendrick, 2003; Heldman, 2002) agree that scope definition provides a documented basis for making future decision and for conforming or developing a common understanding of the project scope among the stakeholders. PMBOK and Heldman, also argues that the scope definition involves several inputs that includes project descriptions, project charter, constraints and project assumptions. A clear and a concise documented definition of the above inputs will eliminate many risks which could otherwise results to project failure.

Poor scope definition has been linked to project failure: Smith and Tucker (1983, cited in Gibson Jr., et al., 2006) have it that “inadequate or poor scope definition, which negatively correlates to project performance, has long been recognized as a significant problem”. If boundaries are not appointed, “final project costs tend to be higher because of changes that interrupt project rhythm, cause rework, increase project time, and lower the productivity as well as the morale of the field work force” (O’Connor & Vickroy, 1986; Merrow & Yarossi, 1994; both cited in Gibson Jr, et al., 2006,).

Poor understanding of the project scope as defined in the project charter in most cases proofs hell to the project manager and his team during the implementation phase of the project. This becomes clear where misallocation of resources to undertake the projects is visible as the project progress resulting to budget overruns prolonged schedules and undesired quality of the deliverables of the project. (Kerzner, 2009) states that, interpreting the scope of the work for the project is a common cause of project failure. This is as a result of poor planning and poor estimation of cost, time and resources. He further adds that according to a survey undertaken in many developing countries, information technology projects have a poor track record of delivering within budget due to poor scope definition of work, with only 20% of software project being completed within budget, 50% with budget overruns and 30% being so expensive in that they are abandoned before substantial completion.

2.4 Nature of planning

The boundaries of the project are of paramount important in successful completion of projects. Clear demarcation of what is to be included and what is not to be included in the project plays a vital role in planning the implementation phase of the project. Scope has been defined as the most important part of the upfront process of planning a project (Tom, 2004). If one doesn’t know for sure what he or she is delivering and the boundaries of the project there are no chances of success in that particular project. Many projects have been initiated with clear boundaries and specific deliverables but have failed to deliver due to misallocation of resources to activities which were outside the project scope. Tom further says that managing scope is one of the most critical aspects of managing project. However if one have not done a good job in defining the scope, managing scope will be almost impossible.

In scope planning process, the deliverables are broken into smaller manageable components so that the project task and activities can be planned in details. This breakdown process will make the estimation process easier in terms of cost, time, and resources needed for individual work

components than it is to estimate the same for the whole body of the work or deliverables. (Heldman, 2002) states that using smaller components also makes it easier to assign performance measure and control. Work breakdown structure (WBS) development in all projects ensures that all the project components (scope) are included. (Kendrick, 2003) argues that the best way to develop the WBS is to start with scope statements and work it “top down” from the whole project concept. At this point he points out that, the project becomes visible whenever it is confusing or difficult to decompose project into smaller and more manageable pieces. (Rory, 2008) points out that the WBS was originally developed in the 1960’s as part of the drive towards improved project definition and it is soon become the backbone of the planning and control system of project implementation. He further adds that WBS as an excellent tool for quantifying the scope of works and has worked successfully in information technology projects in many developing countries. It can also be considered as a hierarchical form of mind map that helps to break complexity down into manageable components.

2.5 Change control mechanisms

According to experts changes are a constant in projects. Since a project is a dynamic process functioning in a changing environment, a team in the planning phase of a long project cannot predict all factors (Wysocki and McGary, 2003) and even an excellent project plan cannot prevent all unexpected “surprises” (Young, 2000). Even the most sophisticated plans can fail due to changes in customer requirements. One other finding is also important: the cost of change (due to a poor plan or customers making changes) rises as the project progresses (Burke, 2003). The later we decide to change (or discover a hidden change), the larger the impacts that change will have on the success of the project. As “a project without changes” doesn’t exist, we must find a way to limit the negative impact of changes or even to take an advantage of them.

As already mentioned defining a scope is a difficult job, but the hardship early on is well worth the initial huge effort to avoid scope creep later in the project life cycle. Also, projects exist in the wider environment and are therefore subject to external forces which will most likely be beyond the project team’s control. Examples are activities by competitors, developments in technology, and trends in the economy, social and political factors, and upheaval within the company itself (Gustafsson, & Wikstrom, 2008). Indeed,(Baar and Jacobson , 2004) state that a project manager should expect the scope to evolve throughout the project life cycle which is echoed by Pietlock and Hollmann (2003) who clarify that the scope can be “modified and refined” (cited in Sharma & Lutchman, 2006). However, any scope changes need to be discussed, found feasible to integrate, be agreed upon and communicated to all stake holders.

Frame (2003) believes the project team must be ready for change so that changes do not surprise them. He also indicates that ignorance of a project’s environmental impacts and lack of information in the planning phase pose a risk that changes might occur in the project. Kerzner (2006) indicates that the purpose of risk and change management is to reduce the number and range of surprises as much as possible. According to Kerzner, change usually creates new risks,

While the occurrence of risk creates changes that are again linked with new risks. Risks and changes therefore appear to be “hand in hand” so enterprises often set up a uniform approach to deal with both. (Oni, 2008) states that change management includes the establishment of a procedure for identifying and evaluating scope changes which might affect the cost and performance of the project.

4.0 Research findings and discussion

4.1 Response rate

Out of the 20 farmers / pond beneficiaries to whom the questionnaires were sent, 19 responded within the given period, representing 95% response rate which was encouraging.

4.2 Gender profiles of the respondents

It was noted that out of the 19 respondents, only 3 were females and from these results it was clear that females have left the management of the ponds to the males even though some owned the projects.

4.3 Scope definition

In order to determine whether scope was adequately defined before projects were initiated the researcher posed questions relating to sources of water, feeds, fingerings and training of farmers. Out of the 19 respondents, 9 indicated that they get water from permanent rivers, 4 gets their water from seasonal rivers which at times dries up. 6 respondents indicated that they use water from wells as there are no rivers and at times uses even tap water.

Table 4.1: sources of water for the ponds

Source of water	Frequency of respondents	percentage
Permanent rivers	9	47.4%
Seasonal rivers	4	21%
others	6	31.6%
Total	19	100%

As to the source of feeds, 6 respondents indicated that they get their feeds from the ministry officials who they organize with to procure on their behalf. 8 farmers indicated that they buy their feeds from local shops while 5 lets the fish feed naturally or use common animal feeds.

Table 4.2: source of feeds

Sources of feeds	Frequency of respondents	Percentage
From the Ministry officials	6	31.6%
From local shops	8	42.1%
others	5	26.3%
Totals	19	100%

With regards to the farmer's knowhow on pond management, the researcher posed a question on whether they were trained before the projects were initiated. Out of the 19 farmers, only 10 were given initial training, 3 had prior knowledge on pond management while 6 farmers were not trained and relied on their colleagues to give them directions.

Table 4.3: Farmers training

Farmers training	Frequency of respondents	percentages
Those who were trained	10	52.6%
Those who had prior knowledge	3	15.8%
Those who were not trained	6	31.6%

Totals	19	100%
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4.4 The nature of planning for the projects

In scope planning before implementation of the projects, the researcher posed questions on water quality management, frequency of feeds supply, marketing structures and public sensitization during the implementation phase of the projects. On water quality management 8 respondents indicated that they have structures to ensure water flows in and out of the ponds throughout the project period that included among them free flow of water by gravity and use of water pumps to re circulate water in the ponds. All respondents indicated that there was no designated cold storage facilities for storage of produce once harvested. All respondents indicated that there was a need for an Agro shops selling recommended fish feed in at least within the District headquarters.

Table 4.4: marketing structures

Marketing structures	Frequency of the respondents	Percentage
Through the ministry	10	52.6%
Through own outlet	6	31.6%
For own consumptions	3	15.8%
Totals	19	100%

Table 4.5: Public sensitization

Level of public sensitization	Frequency of respondents	percentage
Presence of public sensitization by the ministry	6	31.6%
Lack of public sensitization by the ministry	10	52.6%
Other means of public sensitization	3	15.8%
Totals	19	100%

4.5 Evaluation of scope change management

In order to evaluate change control mechanism during implementation of the projects, the researcher posed questions to find out whether there was variations in pond sizes, water shortages and floods, variations in fish feeds in terms of quality and costs and changes in marketing structures. The questions also aimed to find out whether there were mitigation structures for these changes during the implementation process of the projects.

Table 4.6: Floods mitigation structures

Floods mitigation structures	Frequency of respondents	Percentage
Those with no floods mitigation structures	9	47.4%
Those with floods	10	52.6%

mitigation structures

Totals	19	100%
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Table 4.7: Variation of feeds in relation to fish farming

Feeds variations	Frequency of respondents	Percentage
Feed variations affected the farming	13	68.4%
Feeds variations didn't affect farming	3	15.8%
Feeds variations didn't matter in farming	3	15.8%
Totals	19	100%

To determine changes in marketing structures, the researcher asked the respondents how they are able to sell their produce even when there is no specific market for the produce and the upward trends in feeds. 12 respondents indicated that even though there is no common market, they sell to their customers whom they have established as well as through the ministry staff while 5 respondents indicated that they do take their harvest to fisheries office where it is sold by the office which in this case it is on specific days. 2 respondents indicated that their produce is purely for own consumption and friends.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Project scope defines the boundaries of the project outlining what is to be done, when, how and should be adequately defined and planned for, before implementation of the projects. Observations made in fish pond projects in Gatundu south District revealed that, scope of the

projects was not adequately defined to address issues of sources of water, its quality and quantity, source and accessibility of quality and quantity fish feeds as evidenced by absence of Agro shops for fish feeds. Being a new farming technology, it had its challenges which were further amplified by lack of proper training of the farmers who were the beneficiaries of the projects. Though the projects were initiated with high expectations of good returns, planning was inadequate as evidenced by lack of cold storage facility in the area complicating the marketing of the produce considering it is a perishable commodity. Absence of an Agro shop with the recommended fish feed in terms of quality was a clear indication of poor planning as these left farmers to source feeds from different places resulting to unpleasant qualities of the produce. Being newly introduced kind of farming in the area, very few people knew about fish pond farming and handling of the produce in terms of cooking and consumption. Lack of public sensitization did further complicate the matter as there were no public forums to educate the area residents in effort to create market for the produce. It was evidenced that changes in scope was there as the project progressed with only few of the project beneficiaries having structures to manage those changes. This was highly attributed to laxity of the fisheries field staffs who were the supervisors of the projects. Out of the 19 respondents questioned, 7 farmers indicated that the projects were successful though with so many challenges while the 12 indicated that the projects failed representing 63% which is alarming considering the much attention and commitments the government is putting in place to expand fish farming.

5.2 Conclusions

Project scope as indicated earlier, defines all other project parameters including the budget, resources and time to undertake the project. Once an omission is made at the beginning or unwanted inclusions are made during the initiation phase of the project, the subsequent planning and implementation phases of the project do have little chances of success. From the study, it was clear that scope was not adequately defined to address the issues of quality and quantity of water, source of feeds and procurement of fingerlings. This could have contributed to poor quality of the produce in terms of size and weight and hence low income for the farmers. Being new farming technology in the area, training for the beneficiaries was not factored in during the initiation phase of the projects which did further contribute to the project failure as farmers were left to consult their colleagues who did have little or no expertise in pond management.

In any project, planning plays a vital role in successful execution of the projects. Being perishable products there were no adequate plans for marketing the produce including the cold storage facility once the harvested stock is not marketed. This left the farmers losing their produce or giving it out for free and hence low income from the projects. This forced many farmers out of the projects and only harvested the produce for their own consumption. Absence of Agro shop with the recommended fish feeds was a clear indication of poor planning of the projects as this left farmers to source feeds elsewhere at the expense of the produce quality. Lack of public forums to sensitize the local people did contribute to lack of the market for the produce as not so many people know about fish farming and consumption.

As in all the projects, changes are inevitable but with proper guidelines on how to address them, their negative impacts are minimized and positive ones maximized. Laxity of the field staff in visiting and advising the farmers contributed to detrimental changes of the projects in

terms of pond specifications resulting to water seepage, floods and water shortages resulting to poor production or in some serious instances total loss of the produce. Very few change management control mechanisms were evident during the implementation of the projects.

5.3 Recommendations

As the government plans to roll out fish pond projects in different parts of the country in its endeavors to create employment and food sustainability, a lot needs to be done before initiation of the projects. All stake holders including the farmers who are the beneficiaries of the projects, Ministry of fisheries staff who are the supervisory body, Agro product stockiest, local population and the administration needs to be involved in mapping out the projects. Scope of the projects should be adequately defined to include among others the training of the farmers on pond management. The issue of pond specifications, source of feeds, water quality and source of fingerlings should be adequately addressed as this forms the cornerstone of the projects.

Public sensitizations through different forums should be factored in during the planning phase of the projects as this will offer the market for the produce once it is harvested. This can be through organized field days, group training and in educational institutions. Being a perishable product coupled with undefined market, the government should come up with plans to built cold storage facilities in strategic places for storage of the produce. The ministry should liaise with the agro shops in areas where the projects are for stocking the recommended feeds as the projects progresses.

Regular training of the farmers on upcoming issues in fish pond management as the project progresses will make sure that changes occurring during implementation are addressed by the stakeholders and structures to address the changes adopted to be in line with the budget, quality of the produce and the planned schedule for the deliverables. Frequent visits by the Ministry of fisheries field staff would have a big role to play in successful implementations of the projects.

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